





## The Horse.

## NOTES FROM FRANCE.

From our Paris Correspondent.

Dr. J. Schlechter has devoted long and serious attention to the question of heredity, as bearing on size, with mares. It is impossible to draw any precise conclusion from his remarks, because followed by so many exceptions. The following are among the most important: The greater the size of the sire, the greater will be that of the progeny, as compared with the mare. In the case of mean and equal sized parents, it is size of the foal will be relatively less. It is when a mare is crossed by a sire of pure, or demi-bred, that the influence of the latter is most apparent. Where a sire of pure English blood crosses an Arab mare, the progeny will exceed the average size of the parents.

Professor Lanson has instituted a series of experiments to demonstrate the superiority of the mare over the horse, in the double point of view, of digestive power and capacity for work. The former quality is inherited from their sire—the mare, which possesses it to a higher degree than even the horse or the mare. Having a greater digestive power, that is, the ability to extract more energy from their food, scientifically explains why mares have, relatively, a superior capacity for work; and hence, whenever practical, it is better to prefer the mare to the horse as a motive power.

The Gascon so fed his horse that by reducing its rations day by day he succeeded to keep the animal alive till its food was brought down to a single straw—but then it died. To feed horses on saw-dust, mixed with other ingredients—stone, brood is good when beef is in it; cannot be promising at first sight. That kind of nutrition was experimented upon Parisians during the 1870-71 siege and did not prove beneficial. The Austrian minister of war delegated Messrs. Polakowsky and Latschenberger to test how a pair of the rations of two cavalry horses, consisting of saw-dust, would affect their health. They employed fat, popular and older tree saw-dust to the extent of five lbs., made into a biscuit form, with proportionate elements of bran, salt, meal, leaven and flour. The horses did not take to the composite loaf, which besides purged them. Given to an outsider, the animal refused the preparation.

Where animals, horses and sheep to wit, have their teeth sound and complete, there is no advantage to be gained by crushing their grain rations. It is otherwise in the case of old horses, cattle and pigs. These remarks do not apply to grain—oats for example, which is simply bruised or flattened, the husk cracked but the kernel not pulverized, and that a mill can be regulated to effect. This flattening of the grain for draught horses, which are heavy and fast feeders, is a notable aid to the digestion of their rations, and will enable a serious economy to be effected in the amount of food.

Respecting beans, much discussion is taking place as to the most profitable manner to give them as food. Ought they be ground, steeped or cooked? When the bean has been well ripened and satisfactorily harvested, and sufficiently hard, have them ground, if soft, from a wet season or bad sowing, cook them and feed with cut straw. In the case of hard and old beans steeping is held to be the best way of treating them, always preferring rain water or that which is pure and running. This renders the albuminous matters in the bean more soluble, and hence more assimilable.

## The Cruelty of Docking Horses.

Describing the manner of docking horses, as practiced by some of the veterinarians of that city, a New York daily gives the following: "A horse is thrown over the neck of the horse; the ends brought between his forelegs and under his pasterns. A sudden jerk draws up his legs—he falls helpless to the floor, and his legs are tied. He is then secured with a twitch, which is twisting a small rope around his nose, which is very sensitive, so as to divert his attention from the tail. Behind is a furnace, knives, a large pair of shears, and a searing iron.

The operator folds back the hair from the joint to be docked; the knife rapidly severs the skin, the huge shears are applied—the horse struggles, and the tail is off. Then the iron at a white heat is applied, and the bleeding is arrested. The cheers of the audience and the subdued influences of the twitch drawn the cry of pain, that is never brought from the horse except when in great agony; for this noble animal is one of the few which endure ordinary pain without a whimper. After the horse has been mangled he rises to his feet, and is certainly a different creature! He stands shivering with pain, his head drops, his eyelids close, and the stump of a tail is drawn close to his flanks. He is a perfectly subdued horse. But the surgeon does not think it necessary to explain that the operation performed is very similar to the amputation of a leg or arm on the human, and surely no one can say that this is not a painful operation. The parts are supplied with skin, muscles, nerves, bloodvessels, ligaments, bones—in fact the same structure as one's limb—and were it desired, the same pathologic condition which would exist in a man's arm or leg would also take place in a horse's tail. It is just as sensitive to the touch and to pain as any other part of the body. It is claimed that it takes but a short time to perform the operation. Admit it; we have on record a case where a prominent surgeon of Bellevue has amputated a leg in forty-five seconds; but would shortness of time justify the operation, except when occasioned by disease?"

## The Value of a Good Stallion.

Individuals do not appreciate, as they should, the public spirit which has prompted so many to purchase, at heavy cost, choicely bred stallions to use in the State, and improve the quality of the stock. Every man who brings a valuable horse is a public benefactor, and only when years have passed can there be any measure of the results following such an importation. When one stops to consider how much is involved in the purchase, the heavy risks to be borne, and the expense attending the keeping in condition of such a horse, the service fees charged in Maine are but trivial. The great majority are held at less than fifty dollars,

and this provides for free return next year if a foal is not secured.

The public do not appreciate, we say, the efforts of the breeders who have and hold these horses for the public good. If they did they would be more particular about the character of the brood mares, would give them better care and attention during the period of gestation, feed more liberally while supporting a colt, and thus grow a better class of stock. Instead of so much grumbling about service fees, there should be a better appreciation of the worth of food and care upon the dam and her foal. These fees are remarkably low when compared with the merit of the horses, and what they are able to transmit when the conditions are observed. Instead of so much talk about high charges, there should be a better conception of the worth of the foal at maturity, and how this may be gained. The sale of a w.-ailing for \$3,000, or a week old colt for \$1,000, tell, not only of the appreciation of the stallion, but also of the breeding, feeding, care and attention given the dam, not only this year, but every year, and which has preserved her in all her excellence, so that she is able to produce the best of which she is, or ever was, capable.

Not the cost of service, the value of the colt when one, two or three years of age, should be in the mind of the farmer, and without any leaning to extravagance the selection should always be made with reference to quality of offspring. There must be a looking forward to results, rather than a measuring of present costs. Better destroy the mares at once than breed year after year to inferior, small sized, unsound stallions, even though the service be free. It costs as much to grow a poor colt as a good one, and low grade stock multiplies altogether too rapidly.—Maine Farmer.

## Horse Gossip.

FRED POLAKOWSKI is expected by his friends to prove a great horse this season. He is fine fit.

THE OWNER of Spokane, winner of the Kentucky Derby, refused an offer of \$25,000 for him the other day.

THE CHESTNUT MAURE, which got a record of 2:16 at the recent trotting meeting in Philadelphia, was got by Lucifer, a son of Lexington, her dam being by Sharp's Stanley.

COL. HENRY S. RUSSELL, owner of the four-year-old Elgemark, has announced his intention of not starting him in class races, but he offers to match him for a race or series of races with Bell Boy.

WE LEARN from Mr. Levi S. Gould, says the American Cultivator, that the evidence gathered by him concerning the breeding of Waxy has convinced S. D. Bruce, compiler of the "American Stud Book," that she was by Lexington, out of a daughter of Grey Eagle, and she will be so recorded.

PHOTOGRAPH KNOWN to be taken in the Hingray Stakes at Latonia on Tuesday last by Comstock. It is evident Proctor Knott is out of condition, as he carried heavy loads, less weight, and was beaten easily. He is to meet Spokane in the American Derby at Washington Park, Chicago, but it does not look as if he would be fit for a hard race so soon.

DR. MARTIN WILKINS, professor in the Agricultural College at Vienna, Austria, who is in America gathering statistics on all subjects connected with farming, and who spent some time in the Blue Grass region, says of Kentucky horses: "They are undoubtedly the best bred in the world. I have heard the claim disputed by admirers of Tartar and Russian horses, but after examining the horses I saw in the Blue Grass region I am satisfied that they lead the world."

THE BOARD of Stewards of the Grand Central Trotting Circuit met at Rochester, N. Y., on Tuesday last, and assigned the following dates to associations in the circuit: Cleveland, July 20 to Aug. 5 inclusive; Buffalo, Aug. 6 to 9 inclusive; Rochester, Aug. 13 to 16 inclusive; Poughkeepsie, Aug. 20 to 23 inclusive; Hartford, Aug. 27 to 30 inclusive; Springfield, Sept. 3 to 8 inclusive; Albany, Sept. 10 to 13 inclusive; New York, Sept. 17 to 20 inclusive; Philadelphia, Sept. 21 to 27 inclusive.

GUY, the gelding owned by W. J. Gordon, of Cleveland, O., is to be handled by Bud Dwyer this season. He is known as one of the fastest but most erratic horses on the track at present. He cost Mr. Gordon \$10,000 when four years old, has not made him any money, and it was a surprise to every one when he had the horse bought in at the Fasig sale for \$30,000, after an outsider had bid \$29,500 for him. He is expected to show better temper than heretofore this season, and if he does and retains his speed, it will be a great horse which will win him.

MR. GEORGE E. BROWN, of Aurora, Illinois, sailed from New York for England, Saturday, May 25th, on the Cunard steamship Etruria, for the purpose of bringing over his annual importation of Cleveland Bays and English Shires. Messrs. Brown & Co. have for a number of years imported only yearlings, which they mature on their farm near Aurora, before having to offer only fully acclimated stallions which are raised in a plain, practical way and not forced for the sake of rapid growth. Parties purchasing from them are sure to obtain reliable foal getters. They expect to import this year somewhat larger than usual, and to make room for the increased number will give unusual bargains in Holstein cattle, of which they have a large number. Their herd is too well known to need comments. Parties thinking of purchasing should not fail to avail themselves of this chance to procure foundation stock at favorable prices.

SAYS THE N. Y. Herald: "Don't be afraid of breeding too large horses. The people of the present day want them. The best farmers will have them, and the heavy freighters in the cities cannot do without them. The size of the horse of the future will fix its value. The boom is up for big ones, so don't neglect to breed them, and afterward to feed them. A big pair of half-bred Normans that are well matched will bring \$500 as quickly as one silver dollar will bring another. The best horse for the farmer to raise is the draft horse. The 1,400 to 1,700 pounds draft horse requires no special experience or training to sell, and the farmer has as much need of a professional trainer. A ready market is constantly open for the draft horse. The demand far exceeds the supply. The farmer can turn them into cash at their real value more quickly than any other class of horses. While cattle, sheep and hogs have been so depressed the past year or two, the draft horse breeders have met an active demand at big prices; in fact, they are masters of the situation, and about the only class of breeders that can set their own price, and get it, too." And yet

it begins to look as if the market for big horses is getting about all it can take. While we look for lower prices to prevail in this class of horses, as well as all others, there will yet be a good margin of profit at a considerable reduction in prices.

## The Farm.

## A Home-made Corn Planter.

The Western Stockman thus describes a corn planter of domestic manufacture which it recommends to those who have little corn to plant. It is made in this fashion: Take a round stick about two inches in diameter, chamfer or bevel it on the large end, and upon one side of the stick, letting the slope extend up about six inches. Now take a piece of sheet iron, tin or any piece of old stove pipe 15 to 20 inches long, three to four inches wide at one end, eight to 12 at the other. Nail the small end of the sheet to the chamfered end of the stick just a little below the top of the bevel, leaving the hole sufficiently large for the corn to drop through easily, and nail each side of the sheet to the sides of the stick and you have a complete corn planter, which will surprise you. Smooth the upper end for a good hand hold. Fill your pocket with corn and as you step forward insert your planter in the hill to be planted with the beveled side towards you, and as you naturally step forward drop three or four kernels in the mouth of the hopper, which you can do without bending your back, and as you withdraw the planter the corn drops into the bottom and the act of withdrawing will, nine times out of ten cover the corn, but as you step forward to the next hill it naturally comes in your way to step on the hill, which is a good thing to hasten its germination and to prevent its drying out. I used this with great satisfaction for several years. You can plant nearly as fast as you can walk after you become accustomed to its use, besides you know that you plant every hill and know just how much you are putting in each hill.

## Pedigree Seed—Considerations for Improvement of Corn.

The value of pedigree in seed, as an idea, seems as reasonable as that of pedigree in animals. In both cases it is but the expression of a general law of evolution, that concentration of qualities by breeding within definite lines tends to develop strength or propensity; but it is to be remembered that it is just as easy to strengthen bad qualities as good ones. In pedigree seed we have seed with intensity of characters, which, if of the proper sort, tends not only to secure uniformity of quality in the crop, but furnish a plant capable of greater resistance to unfavorable conditions of climate and culture.

In growing pedigree seed and scrub seed side by side, if the soil be fertile, the climate propitious, and all conditions eminently favorable, the amount of the crop may be equal from the two kinds of seed; but let unfavorable conditions arise, and such arise in average localities and seasons, then the difference between the two crops will clearly illustrate the superiority of the pedigree seed in overcoming conditions and securing product. In common parlance, however, the term pedigree carries with it the idea of improvement; that is of artificial qualities which are of value and which have been fixed; and implies excellence in the individual and in its ancestry through a long line of progenitors. Hence we may say that thoroughbred corn is a sort of the farmer can afford to buy and pay high for; but in using this phrase we must also caution that an ill-bred thoroughbred is means intensifies.

Pedigree corn may develop the power of resistance to cross fertilization. I have found two varieties of flint corn, one in Washington, a carefully bred variety, the other the Silver White flint, a naturally bred variety, which have been grown for years alongside a hundred different varieties, and yet have preserved their characteristics so completely that no trace of mixture could at any time be observed. Pedigree can also develop the power of ripening at about the same time every year; while I have known corn with equally good looking seed ears to ripen early one year, and thus escape frost, and very much later than the frost in another year. If several years' observation with a very large number of varieties affords sufficient data for generalization, we may enunciate the formula that to secure earliness in our corn we must select seed ears from those plants which bear ears nearest the ground. This deduction is founded on the fact that in comparing a large number of varieties the earlier the ripening the nearer the ground is the ear; there we have generally found the earliest ears to glaze.

This exception, however, is to be noticed; when the stalk bears two ears or more, the uppermost ear always ripens normally before those that are below it. For illustration, ears of the Golden Puff, which ripens its seed in mid-August, are so low that they often seem to come out of the ground; but the Curagus, which with difficulty matures its crop by the last of October, often bears its ears above the reach of an ordinary man; the Marblehead sweet corn, and Stowell's Evergreen sweet furnish another illustration, and many more might be given.—Dr. E. Lewis Sturtevant, in N. Y. Tribune.

## Cultivation of Beans.

The soil for the growing of field beans is of much consequence. Neither a very light sandy soil nor a heavy clay soil is desirable. A sandy loam of good fertility or a well-drained clay loam will produce the best crop. While a poor soil will produce a poor crop, it is equally true perhaps that an extremely rich one is undesirable. I speak of dwarf or bush beans, upon which a very rich soil will have the effect to make them run to vine rather than to fruit. At the same time it will cause the bushes to fall over, by which they will be damaged and in some cases be longer in maturing and in danger of frost in the fall.

The culture of the California tree bean differs from that of other beans only in giving them greater room. The beans should be planted eighteen inches apart in the rows, one bean to a place, and the rows should be 2-2 to three feet distant. They should be planted as soon in May as danger of frost is past, by the 20th, which will allow them to mature before frost and before continued fall rains come on. But in many seasons

they can be planted up to the 23rd of June. The cultivation is simple, but I advise that it should not be very deep or any later than necessary to keep the weeds down.

So the task is easy. The danger to the bean crop comes in the fall through premature frost, or by continued rains at the gathering time. When ripe they are usually cut, and left in the rows or damaged as hay by rain. Judgment must be used as to time of cutting and curing, and one should be active about it. It would pay as in other crops to spread them out in barn or in sheds. The threshing is done by the flail or tramping out for small lots, but large ones require the threshing, in which the work is done by taking out the cylinder.—Indiana Farmer.

## Germination of Parsnip Seed.

E. J. Brownell, in a communication to the Orange County Farmer, gives his experience in growing parsnip seed for his own use as follows: I had such poor success in obtaining a good stand of parsnips, a vegetable we use largely in our family, from purchased seed, often having to sow them over twice, and then sometimes failing entirely, I resolved to try one year and raise some seed for myself, to see if I would have any better success. I accordingly left one or two roots in my bed when plowing my garden in the spring, which I found occupied but little space, and raised from them a large amount of seed which I sowed the following year, and found it germinated quite as readily under the same conditions as any other kind of vegetable seed. I planted it the following year, with the same result, and then thinking to test its vitality where kept over till the third year, used it on a small part of my bed but sowing enough now seed to depend on, in case of failure with the old. A very small proportion of this seed came up and of some which I sowed of it the next (fourth) year, not a seed grew, through where I sowed new seed of the previous year's growth, and also that kept over one year, nearly if not quite every seed sown at the same time in the same bed germinated readily.

This was a dozen years or more ago, and since that time I have always made it a point to sow seed of this vegetable, and also of salsify, which I know to be of the previous year's growth, or at the longest not more than two years old, and have no trouble with lack of germination.

I am not prepared to offer any explanation of why seed of these vegetables obtained from leading and reliable seedsmen should fail, but believe that by growing our own parsnip seed, we have a cheap and easy remedy from the evil and that it will pay us to do so.

## The Wheat Crop and Crop Reports.

It would seem that the calculations of crop experts must have been at fault, else long ere this the wheat market would have shown the advance that was so generally predicted last summer and fall. In spite of the figures produced by the bulls, wheat has not reached \$1.50 or flour \$10 per barrel. In a letter to an Albany paper, Mr. W. K. Ratton points out what he considers the fallacious assumption of the crop figures. He says the popular fallacy in regard to the amount required to supply the home demand, which for years stood in the way of importing countries, has been exploded, and that no more do we hear that 4-4 bushels per capita are required to meet the home demand. This is true, but some of our crop experts still hold that the amount is 1-2 bushels per capita, which is also too high.

Many of our crop statisticians do not think that over four bushels per capita are required to meet the home demand for food. Of late years our crop experts have been cutting down their estimates of the amount required for our home food supply, and the foreign countries importing grain have been able to make estimates of the amount we could spare them, which were nearer the amount we afterward sent them.

The New York Commercial Bulletin in a recent issue gives figures to prove that the consumption of wheat in this country for food and in the arts for the eight years ended with the crop of 1881, did not exceed 4.18 bushels of 60 pounds yearly. For the six years ended July 1, 1888, it gave figures to prove that the consumption for food and in the arts yearly did not exceed 4.13 bushels of 60 pounds each. The amount of wheat annually consumed in the arts is estimated at fifteen million measured bushels, and if the agricultural bureau's statements of the weight of the wheat crop for the years referred to above are correct the amount consumed for food and in the arts was four bushels of 60 pounds each or less. Figures and opinions are overwhelmingly opposed to Mr. Dodge's estimate of 4-4 bushels per capita, and it is time he was thoroughly investigating the matter and giving a lower estimate, or else offering something in defense of his position.—American Miller.

## Statement Showing the Amount of our Various Exports.

The May report of the statistician of the agricultural department contains the result of the investigation into the deficiencies of surplus of each European nation, especially in the production of American agricultural products that seek foreign markets. As a single year's data would be misleading, the average imports and exports of ten years are taken to obtain the net deficiency of surplus. The net European deficiency is shown as follows: The cereals, flax, butter, cheese, etc., in connection with European production.

As to wheat, the report shows that Europe has practically the only market that America can have for this cereal, and she imports only 144,000,000 bushels a year, raising 1,300,000,000 bushels herself, more than half of the world's crop and twice that of all America. Of the European deficiency the United States supplies 95,000,000 bushels. In oats and barley there is a very small international trade. Rye is the great bread grain of Eastern and Central Europe, and Russia alone produces more than does the United States. Europe imports not less than one and a half million bushels and the United States exports less than three million bushels. The receipts of

European countries requiring maize do not make a sum half as large as the production of Illinois or of Iowa or Missouri. Great Britain takes nearly three-fourths of the total, or 62,000,000 bushels, and this country exports 68,000,000 bushels.

Of potatoes Europe grows more than she needs, while the United States supplies her deficiency from Canada and Germany. Only Great Britain, Belgium and Portugal, of all European nations, do not produce enough butter. To make up the deficiency of 35,000,000 pounds the United States exports 24,000,000. It requires 140,000,000 pounds of cheese to supply the European deficiency, of which 118,000,000 are furnished by the United States. Europe has to import all her cotton, the average annual imports being 2,636,000,000 pounds. The United States sends her 1,850,000,000 pounds.

Europe gets from South America, Asia, Africa and Australia two or three times as much wool as she imports from the United States. The net deficiency of Europe is 780,000,000 pounds, slightly more than is produced there. The United States produces four-fifths of the wool manufactured here. The aim of the wool grower of this country is to supply the home manufacturer if possible; never to export raw wool. If there ever shall be a surplus it will bring more money to the wool grower if sent abroad in the manufactured form. The United States imports net 69,000,000 pounds of wool every year.

The statement shows that Europe produces as much tobacco as the United States—500,000,000 pounds annually—and could easily produce all she needs, but the American tobacco is desired for two reasons—it is cheap and very desirable for fortifying the European product. So the United States furnishes 242,000,000 pounds of the annual deficiency of 324,000,000 pounds.

In conclusion the statistician says: "About one-tenth of our agricultural products is exported. No other nation exports so large a proportion. Yet the articles shipped abroad are few. They are cotton, tobacco, meats, by-products, and cheese. All the other articles together are but three per cent of the exports."

Fits, convulsions, dizziness and headache are prevented and cured by using Warner's Safe Cure. Why? Dr. Owen Rees says: "The tendency (watery condition) of the blood in Bright's Disease produces cerebral symptoms, the serum (watery portion) is altered through the blood vessels of the brain, causing anemia and subsequent head symptoms." That is why these symptoms yield to Warner's Safe Cure. It gets rid of the Bright's Disease and prevents the blood from becoming watery.

## Agricultural Items.

A CORRESPONDENT of the American Stockman says good milk does not have animal odors. If it has, it has contracted them independently of the cow.

ALFALFA seems to promise well in Dakota; and may prove to be of great value. If it can withstand the weather there is no doubt of it being a boon to farmers.

It may be a relief to those who find comfort in the knowledge that others were worse off than they, to know that 19 trusts have been organized in Great Britain since the opening of the year. These trusts represent a capital of \$123,300,000.

W. H. YEOMANS, in the Ploughman, says: "We believe it may safely be laid down as a sure and safe maxim, that without the practice of tillage most crops will be greatly diminished, and that this principle holds especially true in the case of corn, and hence we urge upon farmers to seriously consider the necessity of some form of tillage."

DR. COLLIER, Director of the N. Y. Experiment Station, says: "It is entirely within bounds of facts to assert that there are at least ten per cent of our farmers, in whatever branch of agricultural industry they may be engaged, who are getting double the return of the average of those engaged in that branch—twice the bushels per acre, twice the pounds of butter per cow, and this too simply by improved methods and intelligent application of the fundamental principles of success which should govern their practice."

MR. A. N. NORTON, of the West Michigan Farmers' Club, advocates the following as the best manner of utilizing the rails of an old fence: Set posts every ten feet, one and a half feet deep, posts of good size, sharpen and drive them so they will be firm, put a staple near the top of the post, put wire around your rail, or leave room for rail and place a staple on opposite side of the post placing rails also on alternate sides, making one post answer and balancing the post by putting rails on each side.

RELATIVE to the comments of Dr. Willeher, of the Vienna Agricultural College, the eminent professor, who came to this country to study American agricultural colleges and professed himself surprised to find so little attention paid to Agriculture in them, the Georgetown Telegraph says: "While these strictures are not applicable, to this extent at least, to all of our agricultural colleges, we believe they are a true statement of the situation in many of them. A medical college where only one student in ten is studying medicine would be absurdity, yet this is precisely what is taking place in some of the agricultural colleges."

THE correct way is to buy goods from the manufacturer when possible. The Elkhart Carriage and Harness Manufacturing Co., of Elkhart, Indiana, have no agents, they make first-class goods, ship anywhere, privilege to examine. See advertisement.

## The Poultry Yard.

THE champion bronze turkey of Minnesota weighs 40 pounds, and his harem consists of eight hens weighing from 20 to 35 pounds. His name is Junbo, and he always takes the blue ribbon when he goes into the show-pen.

AN Illinois man has discovered that his Plymouth rock fowls are very fond of the meats of black walnuts and butternuts and fatten on them fairly well. So he cracks a few quarts for them daily and says their anxiety for the feast is quite amusing.

MRS. TOWNSEND, of Pavilion Centre, New York, at a farmers' institute stated her

belief that nearly all the failures in poultry keeping are made by those who are too proud or shiftless to attend to details. She says the raising of early pullets for winter layers helps fill a demand which is greater than the supply.

AN Ohio poultry raiser has made a curious discovery. He says that if you go out to feed a flock of chickens and will cause them to wait, they will invariably, as they crowd about you, begin a circuit around you from right to left in front, and continue this revolution as long as you stand there. No amount of interruption or maneuvering can confuse them or compel them to take the contrary direction at any time.

THE Golden Sebright bantam is not quite so small as some other kinds, but it is very beautiful. The cocks when matured should not weigh over 35 ounces, or the hen over 22. The cock has a hen tail, and there is but little difference in their general appearance. They should have rose combs, horn-colored beaks, white ear-lobes, and the color a golden yellow, each feather laced all around with a narrow black edge. They are quiet in disposition, are beautiful pets, and lay a very large egg, considering their size and cost of keep.

THERE is something which poultry keepers would do well to take into consideration—that though they may feed their flocks very liberally, the food which is thrown to them is only a small portion of their daily living. If you notice fowls closely, you will see that they are eating grass all day long, except when the snow is on the ground or their range is restricted to a small yard, and when this is the case they actually suffer for something to take its place. It is said that the first crop of clover hay, cut short and scalded, comes nearer filling the place of green grass than any other fodder, and being very rich in carbon it is very nutritious. In fact one man declares that a pound of clover hay, which is worth only one cent, cut to half-inch lengths, scalded and sprinkled with bran, will furnish better food for hens than all the mixtures of grain that can be given.—Country Gentleman.

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Tutt's Pills CURE CONSTIPATION. To enjoy health one should have regular evacuations every twelve or fourteen hours. The pills both mental and physical, resulting from HABITUAL CONSTIPATION are many and serious. For the cure of this common trouble, Tutt's Liver Pills have gained a popularity unsurpassed. ELEGANTLY SUGAR COATED. SOLD EVERYWHERE.

Milk Fever in Cows! PROF. R. JENNINGS' BOVINE PANACEA

RELATIVE to the comments of Dr. Willeher, of the Vienna Agricultural College, the eminent professor, who came to this country to study American agricultural colleges and professed himself surprised to find so little attention paid to Agriculture in them, the Georgetown Telegraph says: "While these strictures are not applicable, to this extent at least, to all of our agricultural colleges, we believe they are a true statement of the situation in many of them. A medical college where only one student in ten is studying medicine would be absurdity, yet this is precisely what is taking place in some of the agricultural colleges."

THE correct way is to buy goods from the manufacturer when possible. The Elkhart Carriage and Harness Manufacturing Co., of Elkhart, Indiana, have no agents, they make first-class goods, ship anywhere, privilege to examine. See advertisement.

THE champion bronze turkey of Minnesota weighs 40 pounds, and his harem consists of eight hens weighing from 20 to 35 pounds. His name is Junbo, and he always takes the blue ribbon when he goes into the show-pen.

AN Illinois man has discovered that his Plymouth rock fowls are very fond of the meats of black walnuts and butternuts and fatten on them fairly well. So he cracks a few quarts for them daily and says their anxiety for the feast is quite amusing.

## E-VINCO LINIMENT!

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TO \$5 A DAY. Samples worth \$1.50 FREE. Lines not under horse's feet. Brewster's Safety Rein Holder Co., Holly, Mich.

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For full particulars address: ST. JOHN'S HILL, AGENTS, W. & J. JOHNSON, 100 N. W. 1st St., St. Paul, Minn.

\$2500 WILL BUY A Feed Mill and Corn Sheller that will shell from 40 to 50 bushels and grind from 6 to 12 bushels of corn per hour with the ten days' trial. Address: FOREST CITY MACHINE WORKS, 40-44 Columbus St., Cleveland, Ohio.

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Champion Creamery. FOR CONVENIENCE. Creaming Milk and Cream with a Best Process. Leads the van. Has double attachment. Trailing milk or cream to the separator. Buttery made from it was twice at the GOLD MEDAL at the Indiana State Fair, 1888, and St. Louis, 1889. It has taken the First Premium at every State Fair where exhibited. WE PURCHASE USED IN BUTTER FACTORIES IN ILLINOIS, AND FOR ILLUSTRATED CIRCULARS, AGENTS, send every country and name. DAIRY IMPLEMENT CO., Bellevue Falls, N. Y. 1025-104.

Fairbanks' Scales,



## Horticultural.

## EXPERIMENTS WITH TOMATOES

(From Bulletin No. 14, Agricultural College Experiment Station, Department of Horticulture.)

In the test of tomatoes the same course was pursued as last year, and with the exception of Nos. 170 to 177, the seed used was saved by the department, so that from most of the varieties three crops of fruit have been secured since the seed was originally obtained from the seedsmen.

The collection embraces all of the leading varieties advertised by the dealers, and as many of them were offered under different names or special strains, it contained 148 varieties. This was still further increased by the fact that 53 of these varieties were also grown from seeds saved from the first ripe fruits, making a total of 200 varieties or numbers.

The seeds were sown in the forcing house on the 15th of March, and a record was made of the per cent of germination. After being transplanted, six plants of each kind were placed in the garden as soon as danger of frost was over. They were planted five feet apart each way, and, despite the dry weather, soon covered the ground, making it difficult to gather the fruit without injuring the vines.

The first ripe fruits were noticed on the 13th of August, and the first picking was made on the 17th. The ripe fruits of each variety were counted and weighed, and the gathering was repeated, at frequent intervals, until the 15th of September, when all of the fruits upon the vines were picked, weighed and counted. The plants were also pulled and weighed.

Typical fruits were selected and photographed, and the seeds which they contained were saved for the next year's planting.

## VARIETIES RECOMMENDED FOR PLANTING.

For picking and preserving, any of the pear and plum varieties will be found desirable. The Green Gage and White Apple are also answer well for this purpose. Of the yellow, apple-shaped varieties Jaune Grosse Lisse, Vil. proved most satisfactory. Golden Queen, or Yellow Jefferson will also be found desirable.

The angular sorts are often recommended on account of their earliness, but, although many of them reach a large size and are very productive, several of the smooth sorts possess these characteristics in an equal degree, and are therefore preferable. If any of the angular sorts are to be grown, Extra Early or Cluster will perhaps give best satisfaction.

For ordinary table and cooking purposes the chief dependence should be placed on the apple-shaped sorts. A selection made up of the Advance or Hathaway Excelsior, for early, and of almost any found in the Cardinal, Paragon, or Perfection groups, for the main crop will answer every purpose either for home use or market.

All of the new varieties grown for the first time this year seem valuable and well worthy of cultivation.

Of these varieties Glen Cove, Burpee, Bay State, Ransom, Volunteer, Hallock, and American Hybrid, Paunt, are much alike and are fine, large tomatoes.

The American varieties are a trifle larger than the others, and was the earliest. Volunteer was a little later, but was more productive. Among the other varieties the Ignomus deserves special mention. This tomato was obtained as a sport from Efformine Daur.

This year it exhibited some tendency to revert, but it furnished us the largest and finest fruits we had. They were thick, solid and quite smooth. One of the earliest to ripen, the plants remained vigorous throughout the season notwithstanding the dry weather, and still bore a number of green fruits when killed by the frost. The variety was tested by quite a number of specialists, and without exception they spoke favorably of it. Prof. Giff of the New York Experiment Station writes: "Although the fruits were not very uniform, some were as fine as anything in the shape of a tomato I have ever seen; of good size, remarkably solid and perfectly smooth. With a few seasons' selection it will doubtless be unsurpassed."

Mr. A. L. Root, Medina, Ohio, speaks in equally high terms of it.

## EFFECT OF USING SEEDS FROM FIRST RIFE FRUITS.

Fifty-two varieties were planted in duplicate, six plants being grown from seeds of the first ripe fruits of 1887, and the six adjoining hills from seeds selected some two weeks later.

Comparing the weight of the fruits grown from these varieties it was found that the seeds of the first ripe fruits produced at the first picking, 35% pounds of ripe fruit, while the other plants gave only 28% pounds, showing a gain of 7% pounds in favor of planting seeds of the first ripe fruits, or 25 per cent.

Examining these figures it was found that the angular sorts, which naturally ripen early, produced 26 9-16 pounds at the first picking from the first ripe fruits, while only 9 11-16 pounds were produced by the late fruits, or only one-fourth as many. With the apple-shaped sorts the result was reversed, as the yield was respectively 8 3-16 pounds and 21 7-16 pounds for the seeds from the first, and the late ripening fruits; or in other words, the first picking of tomatoes of angular varieties gave four times as many fruits from plants grown from seeds of the first ripe fruits, as from those selected from the main crop, while with the apple-shaped sorts only two-fifths as many were obtained.

## A New Theory About Pear Blight.

N. P. Barclay, of Bowling Green, Ky., in the *Farmers' Home Journal*, gives his theory relative to pear blight. The *Journal* endorses Mr. Barclay as a careful, observant man, having had a good deal of experience. Mr. Barclay says:

A new theory, if worthy of notice, will meet with criticism and it is with trepidation that I attempt to controvert all past and present opinions of experienced horticulturists on the subject of pear blight. Nothing so simple, if I am correct in what follows, has baffled so successfully the diligent search of ages for the cause, as pear blight. Having the cause—I can rest secure, at least, so long as my theory is not exploded. Investigation leads to truth; and if correct in my

opinion that an insect, and not the bacteria of scientists, causes the terrible destruction to the pear tree, then it is my desire to find the remedy.

In the early spring of 1888, when the first sign of pear blight appeared, I examined the tender buds and stems of leaves and saw that they were being punctured by some kind of insect, and the season seemed to be particularly well adapted for the destruction of the twigs, for the tender shoots, kept wet or full of sap, had as disgusting an appearance as neglected sorts of animals. The thought of this being the beginning of the pear blight that made such rapid progress later in the season, was suggested. If this is true, it is evident that the insect is very poisonous, and the poison self-generated. No one, I judge, who has noticed the steady inroads of pear blight, will deny that the poison, or other cause, continues to gather strength as the season advances, and rarely stops until a change of conditions or the tree is dead. Cutting back must be done far beyond the apparently affected parts to be of any benefit.

The time has about passed for the depredations of the insect. I send you two stems; one dead, the other still green, and both well punctured, and full of the hardened sap or juice which exudes from the tiny wounds. The insect that did this has wings about three times the length of its body. Its color is, according to the reflection of the light, a very pale green or light brown, with a bright red eye and small white spots over its back. It is about the size of the ordinary small snail, and hard to see and catch. Under a magnifying glass he has a plump, semi-transparent body, with two formidable looking horns on each side and two on back, with a row of small ones running from his wings back to them. The bill is built for business, and inclines back like that of the locust under a head similar to that of a grasshopper. Six legs and two feelers about completes his make-up, but not his history or work.

In the past all labor to discover these little pests has been lost, or else he is not the cause. Search for him may have been too late in the season; and it is certain that most of those who have searched have paid attention to the affected branches, vainly searching for some hidden cause therein. Two seasons have pretty well satisfied me, but still I cannot say positively that I know that I have found it. The effects can be seen in any orchard where blight exists, and I hope to hear from others on this subject.

## BLACK KNOT—CAUSE AND REMEDY.

(A paper by Prof. Chas. H. Pack, New York State Botanist, read before a Farmers' Institute at Ballston.)

"Black knot" is a name applied to the irregular puffy excrescences that often disfigure the branches of the plum and cherry trees. It is a disease that weakens the trees, renders them unsightly, unproductive and worthless, and if neglected long enough it finally kills them. It has caused great pecuniary loss to fruit-growers, has discouraged some in their attempts to raise these fruits and has wholly deterred others from all efforts in this direction. The disease is peculiar to this country, and the European fruit-grower is thus far happily exempted from its ravages. It is native on our wild plum and cherry trees, and after the introduction of the cultivated species it attacked those, the germs of the disease passing from the wild to the cultivated trees. Records show that early in the present century plum and cherry trees, in some localities, had been attacked by it and almost destroyed. It is found on the choke cherry, the wild red cherry, the wild plum and occasionally on the wild black cherry and the beach plum. I have never seen it on the little sand cherry. Its attacks as a rule are less frequent and less severe on wild species than on cultivated ones. It does not often kill the wild trees. All cultivated trees are not equally liable to be attacked. I have never seen the varieties of the ox heart or English cherry affected by it, but the varieties of the sour cherry are especially liable to its attacks. Other things being equal, a thrifty, vigorous and healthy tree is less liable to attack or permanent injury by it than a sickly, feeble or neglected one.

The disease first shows itself in the form of a swelling in the branch. This swelling varies from one to six inches or more in length, and from half an inch to one inch or more in thickness. It sometimes surrounds the branch on all sides and sometimes puffs out on one side only. In the former case it kills the part of the branch above it, in the latter it may not. It more often surrounds the branches of the cherry trees than of the plum trees, and therefore is likely to destroy the life of the former sooner than the latter. The interior of the swelling is softer in texture than the sound wood. The epidermis or outer bark is soon split by the enlargement of the branch, and the surface is, for a time, somewhat scaly by reason of the adhesion fragments of the epidermis. The enlargement is limited to the sap-wood, the heart-wood remaining unaffected. The branch is sometimes curved or contorted by the knot, especially if the excrescence occupies but one side of it. Soon after the rupture of the epidermis a minute olive-green mold makes its appearance in the crevices of the bark. This is sometimes very sparse and must be closely sought to be seen; in other instances it is very abundant and covers the whole surface of the excrescence with a dark-green velvety coat of mold. Later in the season minute glaucous black grains appear. These are smaller than a pin's head, and are crowded together as closely as possible. They usually cover the whole of the knot, and give it the black appearance which is suggestive of the name "black knot." This appearance is so unlike that of the knots in their earlier stages, that some have affirmed thereof that there are two distinct kinds of black knot. Some have also supposed that black knot of the cherry was distinct from that of the plum. But these are mistakes. The different appearances are due to the different stages of development, or to differences in the host plant.

The characters thus far described are all visible to the naked eye, and any one who chooses can see them for himself. We come now to the question: What is the cause of the black knot? What produces it? For a long time it was a disputed question whether it was caused by a fungus or by insects; whether it was itself a fungoid excrescence

or an insect gall. Very often, upon cutting open one of these knots, the larvae of insects and their borings are found. This led to the supposition that insects were the cause of the mischief, and some have held this opinion until recently. Lewis Schweinitz, a Moravian minister, was the first botanist to give attention to this subject. He described the knot as a fungus, calling it *Sphaeria morbosa*, the disease-bearing spheria. A few years later, he having removed from Salem, N. C., to Bethlehem, Pa., in commenting on this fungus, says: "This singular spheria and deadly pest has been observed on several of our indigenous species of cherry, but neither in Pennsylvania nor in Carolina has it been found to destroy native trees. But it is a deadly disease on our cultivated cherries, especially those called Amarelos. Forty years ago this variety was common about Bethlehem, but a few years afterward they had almost all been destroyed by the combined action of this fungus and a cynipis, whose operations are constantly present to such an extent that our pomologists have not, to this day, been able to restore these fruit trees. In the mean time, various plums, such as the Hungarian, Rine Claude, etc., lately introduced and assiduously cultivated, were flourishing finely, and were entirely free from this deadly pest. But very lately, even on all these, the cynipis and the fungus have begun to rage. A remedy is greatly desired, but has not yet been found."

It is evident from this that Schweinitz himself supposed the disease was due to the united action of the fungus and an insect. But recent investigations and microscopic examinations have shown that the fungus alone is the cause of the mischief. Its seeds, which are called spores, lodge upon the branches of the tree; and under favorable conditions of heat and moisture they germinate, and their germinal threads, which are technically called mycelium, penetrate the tissues of the sapwood and produce a kind of irritation which results in an enlargement of the branch, and the development of the successive stages of the fungus, as already described. No insect eggs or larvae can be found in the swelling in its earliest development, but the fungus threads can. These are always present; the insect larvae are not. The soft tissues of the young excrescence invite the insect attack, and afford a suitable nidus and food for the larva, just as the flesh of the young plums does for the larva of the curculio. The insect found in the black knot does not cause the knot any more than the larva of the curculio cause the plum. The insect seeks them in both cases as a place for depositing its eggs and rearing its young.

The fungus being the cause of the disease, it is desirable that we know something of its habits and history and mode of propagation. The microscope reveals this. By its aid we find that the olive-green mold which first appears bears a crop of fungus seeds or spores. These are sometimes called the summer spores. Many kinds of parasite fungi produce two kinds of spores. First, summer spores, which appear early in the season, germinate quickly under favorable circumstances, and serve to reproduce and spread the fungus during the current season. It is circumstances do not favor their germination, and serve to carry the spores through the winter, and reproduce the fungus the next season. In the case of the black knot, after the summer spores have been produced, the minute black spores already mentioned, intermingled with a few immature elongated membranous sacs, but no spores. But if we examine them again in winter, or in early spring, we shall find numerous well developed sacs, each of which contains eight spores, usually arranged one above another, very much as beans are arranged in the pod. These are the winter spores of the black knot. They have been developed during the winter, and will be ready, with the opening of the season, to be scattered abroad by the high spring winds, and to spread the disease to other trees. They are very minute, and may be wafted long distances by the wind. It would require about 1,500 of them, when placed in contact with each other, end to end, to extend one inch. An estimate gives 10,000 of the spores space to a square inch of surface, or about 50,000 on a knot of medium size. Supposing each spore space to contain 20 sacs, or 160 spores, such a knot would produce 12,800,000 spores, with which to infect neighboring branches and trees.

This fungus has also another method of reproducing or propagating itself. The mycelium, or filaments, which are the immediate product of the spores, and which may be called the roots of the fungus, is perennial. It lives in the knot, and may extend from it in either direction, so long as the branch is alive, and thus new knots are produced by each season. Commonly the part of the branch above the knot soon dies, and then the extension of the disease by the mycelium is downward only. Thus it ordinarily happens that after a cultivated tree has been attacked, the disease, if left to itself, continues to spread in the branches indefinitely, or until the life of the tree is destroyed.

What now is the remedy for this state of things? How shall we stop the spread of this disease, both by the spores and by the mycelium?

Evidently the most natural and effective remedy is that which at once suppresses itself almost to every mind. It is simply to cut off or prune away the excrescences. The mycelium is deep seated and protected by the surrounding tissues, so that external applications would not be likely to destroy it. But in cutting away the knots two or three things should be borne in mind. Should the branch be cut close up to the knot it is quite likely that some of the extremities of the mycelial threads would be left in the wood, and they might produce a new excrescence. To avoid this danger the cut should be made three or four inches below the knot. Sometimes a knot may occupy but one side of a large branch, which it may be desirable to save. In such a case shave off the knot, taking with it the surrounding sapwood, a little distance above and below for the purpose of getting all the mycelium if possible. It might be well to cover large wounds thus made with paint, varnish or grafting wax, as a protection from exposure to the atmosphere. In a single instance I have seen the trunk of a young plum tree entirely surrounded by a black knot just below the low-

est branches. Such a case is scarcely curable. The tree may as well be taken out at once and replaced by another. When the knots have been cut off, do not throw them on the ground and leave them there. They might still develop their spores to plague you in the future. Put them in the fire and burn them to ashes; then they will do no more mischief.

When should the knots be removed? Manifestly as soon as possible after they have made their appearance. Do not give them time to perfect a crop of spores. Perhaps one exception may be made to this rule. If a tree is first seen to be affected when in full leaf, and the knots are so numerous that their removal would cause serious injury to the tree, it might be better to wait till the leaves have fallen, before resorting to this excessive pruning. They could then be removed with greater safety to the tree. But ordinarily, the few knots that appear in a first attack can be removed with safety at any time. On no account should the knots be allowed to remain on the trees during the winter. They should all be destroyed as soon as the leaves have fallen so that they can easily be detected. In this way the development of the crop of winter spores will be prevented, and so much will be accomplished in preventing the spread of the disease. Every man who owns a plum tree or a cherry tree should make a rule to examine his trees in the fall, and to cut away and burn every black knot found. There is need of unity of action in this matter. If one man neglects this, even though all his neighbors are faithful in the matter, he may thus perpetuate the disease by raising annually a crop of black knot spores with which to repeatedly infect his neighbors' trees. This is a case in which self-interest and public good go hand in hand. It is better for all that each should attend to this business faithfully, systematically and thoroughly. Let no black knots remain on the trees during the winter. With this work thoroughly done there would still remain, in some localities, a chance for infection from diseased wild trees in the vicinity. So long as the black knots remain on these, care and watchfulness must not be omitted. It is scarcely to be expected that fruit-growers will go into all the uncultivated and mountainous regions of the land to find and destroy the knot on all the wild plum and cherry trees. Still less is it to be expected that all such trees will be cut down, because they might possibly nourish and propagate the disease. But it might be practicable for every owner of a farm to see that no black knots are allowed to winter on his land, either on the cultivated or wild trees. In most localities the danger of infection from wild trees has been reduced to almost a minimum by the thorough clearing up of the country.

The danger of infection is also greatly diminished by giving good cultivation and sufficient nourishment to the tree. I have observed a choke-cherry tree standing on the margin of a barnyard where it obtained an abundant supply of the nourishment such a place affords. It has never been affected by black knot, though the species is especially liable to attack, and though affected plum trees have grown within two or three hundred feet of it for several years.

Those well known and successful nurserymen, Ellwanger and Barry, say in a recent catalogue of fruit trees: "Nothing is more favorable to the growth of the black fungus or knot than neglect. We have seen trees growing to grass in some uncultivated door yards transformed into a mere mass of black knots, while trees in neighboring gardens, under good cultivation, were entirely exempt. In our specimen plum orchard it does occasionally make its appearance, but we instantly remove it. Our preventives and remedies are good clean culture and prompt amputation. We are able to fruit in the most successful manner seventy or eighty varieties of plums annually, getting not nearly a few scattering fruits, but full crops weighing down the branches."

It is quite evident then that the black knot is no insurmountable obstacle, not even a formidable one, to the raising of good crops of plums and cherries. It merely makes necessary a little extra care and attention. It is with these fruits as with everything else worth having. They do not come of themselves. A price must be paid for them. A little extra labor intelligently and judiciously applied will give us the mastery of the black knot, and will be abundantly rewarded by good crops of plums and cherries.

## Lima Beans.

The Lima bean is one of those vegetables which I have found to do better by having a permanent location in the garden than in rotation with other crops. It requires a richer soil than the ordinary dwarf bean, and will pay well for special attention. Most growers use poles for these beans which are entirely too tall. The crop is harder to secure from the tall poles, and the extra height is an absolute disadvantage, since it encourages the upward growth of the vine and retards its fruiting. If poles are used at all, a height of five feet is enough. Before setting the poles run furrows with a plow where the rows are to be. In these furrows place the manure or commercial fertilizer, then with a crowbar set the poles firmly in the furrow, four feet apart. Next throw a furrow to the row of poles from each side, leaving them standing in a ridge. Now, with a rake, dress this bed of earth into good shape, and around each pole plant four beans, eye downwards, and only just beneath the surface. The elevated ridge around the poles will heat up sooner than a flat surface, and the germination will be much more rapid. When the plants are firmly established pull up all but two to each pole, and give a little attention to starting the vines on the poles, as they frequently need to be tied at the beginning. But the best way is not to use poles at all. Set two or three stout posts in the line where the beans are to grow, and then stretch galvanized wire-netting, four feet wide, from post to post, and plant the beans along the ridge about six or eight inches apart. The wire will furnish points to cling to from the start, and the bean plantation will look much better than with the poles.

Perhaps the Lima bean will in time be able to support itself. The new Bush Lima furnishes a starting point for a dwarf variety to take the place of the old Lima. The Bush Lima, though a good thing, is, nevertheless, the smallest of all Limas, and cannot yet entirely supersede the old large Lima. But having secured the habit it will not be long

before we have the big bean on the small bush. As grown here last summer the Bush Lima, or Bush Sieva, was fully two weeks or more earlier than the Pole Sieva, and more than that in advance of the large Lima. It will thus be of great advantage in localities too far north for the large Lima. But even if we succeed in putting the large bean on the small bush, it is hardly probable that we can put so many there or keep up the succession as late as on the running vines. Therefore we had probably better not dispossess of our poles or wire netting. In fact, by the use of this netting it becomes easy to grow many desirable beans which the pole nuisance has almost banished from our gardens.—Garden and Forest.

## BEECHAM'S PILLS cure bilious and nervous

ills.

## Horticultural Items.

A. N. Norton, of Grand Rapids, has an asparagus bed which has been in existence for twenty-four years, and is, he says, as good as ever.

Five packages for fresh fruit in the way of the California Fruit Grower, which says very truly that insect pests are transported from one locality to another in these empty packages. There is but one use, it says, for empty fruit packages, and that is for kindling wood.

J. WAYLAND CLARK, of Tacoma, Washington territory, says that the fruit in that locality is simply prodigious. He has seen plums, seven of which will fill a quart can, and has a current bush twenty-two feet high in his backyard from which he picks the fruit with the aid of a step-ladder. This modern Munchausen is evidently not a lineal descendant of the boy who could not tell a lie.

From accidents of various kinds, and sometimes from the severity of the winter, evergreens sometimes lose their leading shoot on which most of their beauty depends. The European silver fir not infrequently loses its terminal bud by intense cold when young. This can easily be remedied, says *Farm News*, by selecting one of the upper side branches most favorably situated, and tying it in an upright position by means of a small stick fastened to the body of a tree. After one or at most two seasons, the branch will have assumed the leadership, and the support may be taken away.

UPON the subject of windbreaks as a protection to fruit orchards, Secretary Fuller, of the West Michigan Farmers' Club, says: "There is no doubt an advantage in protecting small fruits from the blasts that lay them bare in winter. The snow protection in extreme weather is of great use. The protection of trees bearing fruit, when the crop is ripened, to prevent the falling of fruit, is a gain, but in all these years that we have been studying peach culture, we have been selecting the highest and most exposed hills in our country for the peach. Personally, I have congratulated myself on possessing a comparatively high and exposed point for the setting of peach trees. I do not believe in windbreaks for the protection of fruit."

The New Jersey Experiment Station has issued a circular letter which contains a good many useful hints to farmers as to their action when a new or heretofore unknown to them insect pest attacks any of their crops. The first point is promptness in reporting the damage; do not wait until the harm is done. Send specimens of the insects, rather than attempt to describe them; send specimens of their work also. Do not try to send insects in a letter, but pack in a tight box, with some of the food they are using. Then, send also a brief account of what you know about them; how and when they work; how long you have observed them; how much damage they have inflicted; what remedies you have tried and what has been your success with them. Write your name on the outside of the package containing the specimens. This is allowed by the postal authorities in such cases, and identifies the contents as those described in your letter.

## NEW ADVERTISEMENTS

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The Chief Reason for the great success of Hood's Sarsaparilla is found in the article itself. It is merit that wins, and the fact that Hood's Sarsaparilla actually accomplishes what is claimed for it, is what has given to this medicine a popularity and sale greater than that of any other sarsaparilla or blood purifier before the public. Hood's Sarsaparilla cures Scrofula, Salt Rheum and all Humors, Dyspepsia, Sick Headache, Biliousness, overcomes That Tired Feeling, creates an Appetite, strengthens the Nerves, builds up the Whole System. Hood's Sarsaparilla is sold by all druggists. \$1; six for \$5. Prepared by C. I. Hood & Co., Apothecaries, Lowell, Mass.

Nothing Succeeds Like Success. I have been successful in the production of Comb Honey for the past ten years by the method I publish in "How I Produce Comb Honey," briefly explained in the enclosed circular. By mail, a copy of my circular, a sample of my product, and a list of general supplies, bees and queens. GEO. E. HILTON, Fremont, Mich.

Grape and Other Small Fruit Plants. Both the old and the new. The latter a specialty. Price list ready March 1st. Sent free to all who apply. Address T. T. LYON, South Haven, Michigan.

BEE-KEEPERS' SUPPLIES. Japanese Buckwheat, Alsike Clover Seed, etc. Free Price List. H. HUNT, Bell Branch, Mich. Reference—*Editor's MICHIGAN FARMER*.

## NEW ADVERTISEMENTS.

## NEW ADVERTISEMENTS.

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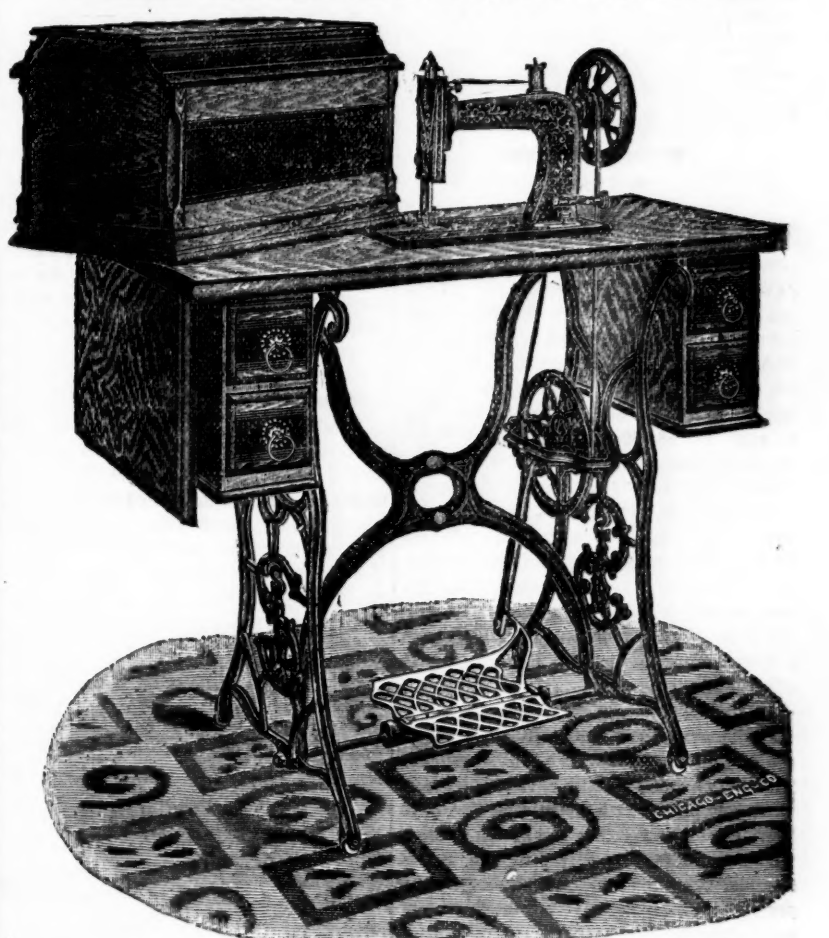
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## MICHIGAN FARMER.

—AND—  
STATE JOURNAL OF AGRICULTURE.

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P. B. BROMFIELD, Mgr.

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Subscribers wishing the address of the Farmer changed must give us the name of the Postoffice to which the paper is now being sent, as well as the one to which they wish it sent to. In writing for a change of address all that is necessary to say is: Change the address on Michigan Farmer from — Postoffice to — Postoffice. Sign your name in full.

DETROIT, SATURDAY, JUNE 1, 1889.

This Paper is Entered at the Detroit Post-Office as second class matter.

STOCK SALES IN MICHIGAN.

The following dates have been selected by Michigan breeders for sales of improved stock:

JUNE 6—D. Hennings, Battle Creek, Shorthorn and Hereford cattle. J. A. Mann, Auctioneer.

JUNE 12—C. P. Moore, St. Clair, Shorthorns. J. A. Mann, Auctioneer.

OCTOBER 24—A. W. Russell, Pewamo, Shropshire and Poland-Chinas.

## WHEAT.

The receipts of wheat in this market the past week amounted to 59,472 bu., against 64,644 bu. the previous week, and 37,675 bu. for corresponding week in 1888. Shipments for the week were 22,137 bu., against 49,539 bu. the previous week, and 53,217 bu. the corresponding week last year. The stocks of wheat now held in this city amount to 88,950 bu., against 59,325 bu. last week, and 321,700 bu. at the corresponding date of this grain on May 25, 21,284,385 bu., against 22,342,701 bu. the previous week, and 28,662,455 bu. for the corresponding week in 1888. This shows a decrease from the amount reported the previous week of 88,316,774 bushels. As compared with a year ago the visible supply shows a decrease of 6,378,070 bu.

It is the same old story of weak and declining markets and dull trade. Speculators are disgusted, and do but little business. The heavy rains of the past week have weakened prices, as it is believed they have been rather timely for the growing crop. The weather is extremely cold and unseasonable, but while this condition is very severe on corn and early vegetables, it will help wheat and oats. Wheat was getting dried up badly, and it would have soon started heading out with the hot dry weather early in the month. This would have given a light crop, as the heads would be short and badly filled. These cold rains will hold back development and keep the plant growing. But, all the same, we are not going to have the crop of wheat crop reporters are estimating. The crop is not even—some sections being excellent and others badly damaged. It looks as if prices were lower than the outlook warrants.

The following table exhibits the daily closing prices of spot wheat in this market from May 1st to May 31st inclusive:

May	No. 1	No. 2	No. 3
1	95 1/2	94 1/2	93 1/2
2	95 1/2	94 1/2	93 1/2
3	95 1/2	94 1/2	93 1/2
4	95 1/2	94 1/2	93 1/2
5	95 1/2	94 1/2	93 1/2
6	95 1/2	94 1/2	93 1/2
7	95 1/2	94 1/2	93 1/2
8	95 1/2	94 1/2	93 1/2
9	95 1/2	94 1/2	93 1/2
10	95 1/2	94 1/2	93 1/2
11	95 1/2	94 1/2	93 1/2
12	95 1/2	94 1/2	93 1/2
13	95 1/2	94 1/2	93 1/2
14	95 1/2	94 1/2	93 1/2
15	95 1/2	94 1/2	93 1/2
16	95 1/2	94 1/2	93 1/2
17	95 1/2	94 1/2	93 1/2
18	95 1/2	94 1/2	93 1/2
19	95 1/2	94 1/2	93 1/2
20	95 1/2	94 1/2	93 1/2
21	95 1/2	94 1/2	93 1/2
22	95 1/2	94 1/2	93 1/2
23	95 1/2	94 1/2	93 1/2
24	95 1/2	94 1/2	93 1/2
25	95 1/2	94 1/2	93 1/2
26	95 1/2	94 1/2	93 1/2
27	95 1/2	94 1/2	93 1/2
28	95 1/2	94 1/2	93 1/2
29	95 1/2	94 1/2	93 1/2
30	95 1/2	94 1/2	93 1/2
31	95 1/2	94 1/2	93 1/2

Some trading is being done in the new crop, August selling at 76 1/2 cts. September, 76 1/2 cts. and the year 76 1/2 cts. per bu. This shows how dealers regard the future of the market, but they may yet be sorely disappointed. The following is a record of the closing prices on the various dates in futures each day during the past week:

	May	June	July	Aug.
Saturday	89 1/2	87 1/2	79 1/2	79 1/2
Sunday	89 1/2	87 1/2	79 1/2	79 1/2
Monday	89 1/2	87 1/2	79 1/2	79 1/2
Tuesday	89 1/2	87 1/2	79 1/2	79 1/2
Wednesday	89 1/2	87 1/2	79 1/2	79 1/2
Thursday	89 1/2	87 1/2	79 1/2	79 1/2
Friday	89 1/2	87 1/2	79 1/2	79 1/2

A May "corner" was expected, but it did not materialize. New York, Chicago and St. Louis were lower on spot and new futures yesterday, but firmer on the latter.

No markets were held on Thursday, as it was "Memorial Day" and a legal holiday. The drought in Australia is said to be over, plentiful rains having fallen.

Hungarian advices say that the weather has been warm and favorable for the crops, the condition of which, except in the inundated districts, is generally good.

Belgium reports fine weather and excellent crop prospects. Stocks of grain at Antwerp are small for the season.

In Germany the weather has been favorable for the crops, which are decidedly backward for the season, and need good weather from now on to harvest if they are to succeed well.

The markets have been firm for wheat and rye.

It is estimated that France will require nearly 20,000,000 bu. of foreign wheat between now and harvest.

and seed, owing to crop loss from rains in the harvest months.

The following table shows the quantity of wheat "in sight" at the dates named, in the United States, Canada, and on passage to Great Britain and the Continent of Europe:

	Bushels.
Visible supply	23,850,475
On passage for United Kingdom	13,848,000
On passage for Continent of Europe	2,520,000

Total bushels May 11, 1889..... 40,218,475  
Total previous week..... 42,904,770  
Total two weeks ago..... 43,482,370  
Total May 12, 1888..... 34,921,340

The estimated receipts of foreign and home-grown wheat in the English markets during the week ending May 18 were 719,440 bu. more than the estimated consumption; and for the eight weeks ending May 4 the receipts are estimated to have been 698,536 bu. less than the consumption. The receipts show an increase for those eight weeks of 3,599,370 bu., as compared with the corresponding eight weeks in 1888.

Shipments of wheat from India for the week ending May 18, 1889, as per special cable to the New York Produce Exchange, aggregated 1,100,000 bu., of which 720,000 bu. were for the United Kingdom and 380,000 for the Continent. The shipments for the previous week, as cable, amounted to 500,000 bushels, of which 100,000 went to the United Kingdom, and 400,000 to the Continent. The shipments from that country from April 1, the beginning of the crop year, to May 18, aggregated 8,600,000 bu., of which 2,340,000 bu. went to the United Kingdom, and 1,620,000 bu. to the Continent. For the corresponding period in 1888 the shipments were 5,300,000 bu. The wheat on passage from India May 8 was estimated at 1,730,000 bu. One year ago the quantity was 2,272,000 bu.

The Liverpool market on Friday was quoted steady with fair demand. Quotations for American wheat were as follows: No. 2 winter, 6s. 5d. per cental; No. 2 spring, 7s. 3 1/2 d. @ 7s. 4 1/2 d.; California No. 1, 6s. 9 1/2 d. @ 6s. 10 1/2 d.

## CORN AND OATS.

The receipts of corn in this market the past week were 28,056 bu., against 39,121 bu. the previous week, and 51,875 bu. for the corresponding week in 1888. Shipments for the week were 45,533 bu., against 9,956 bu. the previous week, and 37,098 bu. for the corresponding week in 1888. The visible supply of corn in the country on May 25 amounted to 11,445,636 bu., against 9,691,944 bu. the previous week, and 9,691,944 bu. at the same date in 1888. The visible supply shows an increase during the week indicated of 1,353,692 bu. The stocks now held in this city amount to 45,680 bu., against 60,051 bu. last week, and 42,982 bu. at the corresponding date in 1888. The market is again slightly lower, and trading very light. For No. 2 3/4 cts. was paid yesterday, and No. 3 brought 3 1/2 cts. a sale of No. 2 yellow was made at 3 1/2 cts. per bu. In futures No. 2 for July delivery sold at 3 1/2 cts. The frosts of the past week hurt corn a good deal in this State. Some reports reach us of fields having to be replanted. Other States must have suffered also. At Chicago corn is steady, and yesterday there was a slight advance on June and July futures. Spot sold at 3 1/2 cts. for No. 2, and 3 1/4 cts. for No. 3. In futures June closed at 3 1/2 cts. per bu., and July at 3 1/4 cts. and strong. The New York market was 1/4 cts. higher than on Wednesday, closing firm.

The Liverpool market yesterday was quoted quiet with fair demand. New mixed western, 3s. 8 1/2 d. per cental. In futures May sold at 3s. 8 1/2 d., June at 3s. 8 1/2 d. and July at 3s. 8 1/2 d.

The receipts at this point for the week were 34,862 bu., against 30,679 bu. the previous week, and 40,474 bu. for the corresponding week last year. The shipments for the week were 1,905 bu., against 6,618 bu. the previous week, and 8,764 bu. for same week in 1888. The visible supply of this grain on May 25th was 6,341,751 bu., against 6,750,301 bu. the previous week and 5,092,811 at the corresponding date in 1888. The visible supply shows a decrease of 408,550 bu. for the week indicated. Stocks held in store here amount to 18,424 bu., against 18,107 bu. the previous week, and 40,992 bu. the corresponding week in 1888. Oats are rather dull and lower. Receipts have not been heavy, nor are stocks large, but the decline in other grains has had an unfavorable effect upon the market. No. 2 white are now quoted at 27c per bu., light mixed at 26 1/2 cts., and No. 2 mixed at 25c. Nothing doing in futures. The Chicago market is again lower, spot No. 2 selling there at 22c per bu., June delivery at 22c, and July at 22 1/2 cts. The market there was stronger yesterday. At New York oats are reported irregular but fairly active, with prices on both spot and futures lower than a week ago. Quotations yesterday were as follows: No. 2 white, 34c; mixed western, 26 1/2 cts.; white western, 32 1/2 cts. In futures No. 2 mixed for June closed at 27 1/2 cts., and July at 28c per bu.

## DAIRY PRODUCTS.

It looks as if the bottom had been reached in the butter market, as fair dairy stock is selling here at 12 1/2 cts., with 14c paid for the best. This is not gratifying intelligence to butter-makers, but it is nevertheless a fact. There is too much butter coming in to allow values to harden. A little holding back for a time on the part of those shipping to this market certainly looks advisable. Pastures are in such excellent condition that cows have done remarkably well, and the result is a large increase in the make of butter, with a corresponding reduction in prices. Creamery is quoted steady at 16 1/2 cts. per lb., with receipts equal to the demand. At Chicago the market shows a further decline. 1/2d arrivals and offerings of good butter were liberal and while there was a moderate call on both local and outside account the market lacked strength and the feeling was less buoyant than a few days ago. The inquiry was chiefly for fine creameries. Quotations were as follows: Choice creamery, Elgin district, 16 1/2 cts. per lb.; do Iowa and Wisconsin, 14 1/2 cts.; best dairies, 13 1/2 cts.; poor to common stock, 7 1/2 cts. At New York the market is steady for the best grades of stock. Under grades are plenty and slow, with the tone easy, the steadiness

only being noticeable in fancy grades and those closely approximating. Fancy Western creamery is hardly quotable above 17 1/2 cts., though exceptional marks of Elgin and separator goods are occasionally held a shade higher. Next grades under are also held above steady, but under grades slow and irregular. State creamery pails not quotable above 18c in a wholesale way, though working out a shade higher to grocery. State dairy tubs in small supply and selling promptly at full prices when fine. Choice full grass Western packed is held firmly. Reports say exporters are operating fairly in ladle-packed at 11 1/2 cts. for Great Britain, and taking cheaper grades for the Continent, mostly under 10c.

Quotations in that market yesterday were as follows:

EASTERN STOCK.	
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2
Creamery, State, pails, fancy.....	15 1/2

There is not a sign of weakness in that market, where most of the clip of this State is marketed, and the only trouble is the smallness of stocks—certainly not an unfavorable point for the seller.

Here is also an extract from the *American Wool Reporter* of Thursday, which sustains the position we have taken for the past two months, that the wool clip of the State should bring growers from 3 1/4 cts. per lb. more than a year ago:

"In comparing the ruling prices for wools to-day with those of a year ago we find fleece wools four to five cents higher, and territory wools worth fully seven cents per scored pound more than 12 months ago. On the 31st of May last year Ohio XXX wools brought 29c, to-day it sells readily at 33c. Michigan X at the same date was inactive, but held at 26 1/2 cts., choice lots will now sell at 30 1/2 cts. In comparing the scored cost of territory wools we find fine selling from 30c to 35c. This same wool is to-day worth from 35c to 40c."

As to Philadelphia, the trade there seems to be anxious to get all the desirable wool possible, and values are very firm for such stock. Here are some extracts from the report of the *Wool Reporter* on that market:

"Dealers are firmer in their views and so small a concession as half a cent has spoiled sales. Sixty days ago this difference in view would not have turned the hands of buyers away from the market. The market was given then; but as the opening operations in the country during the last two days are undoubtedly a criterion to judge of the future, the hands of buyers have become firmer, and demand full prices. Ordinarily, a half cent at this time of year would not sell a sale, but this year there is a tendency to hold for a figure that will compensate the grower for letting the wool go."

"It is not often we see a quiet market a seller's market at the same time, but we have that view now. Very little wool is moving, and save perhaps some lines of clothing and delaine wool, the distribution is scattered over a large territory and in small amounts. There is nothing really new to report about counting wools. We would continue to quote the better class of washed wools at 39 and 40c for medium, and 38 and 39c for quarter blood. Unwashed combings we quote at 29 to 30c for medium, and 28 and 29c for 1/4 blood. Philadelphia grading these prices cannot be bought by 1/2 cts. Washed new to fleeces are now quoted at 22 1/2 cts. There has been more inquiry for X fleeces and some for delaines; X Ohio we quote at 33 and 34 cts. X at 32 cts. and Michigan X at 30 and 31 cts. Fine colored wools we quote at 35 and 36 cts; Michigan at 34 cts."

Do wool-growers see anything in the reports which should lead them to dispose of their clips at the prices talked of by local buyers? If local buyers are not willing to pay more, ship the wool east to some reliable commission house, and have it held subject to your order. This clip means a year's care and labor for you. It is not something you can afford to throw away. Don't let buyers talk you out of your property without a fair equivalent, and that is not what sellers are getting in most instances, according to the reports from interior markets printed below.

Quotations in that market yesterday were as follows:

EXPORTS.	
State factory, full cream, fancy.....	8 1/2
State factory, full cream, choice.....	8 1/2
State factory, full cream, good.....	8 1/2
State factory, full cream, common.....	8 1/2
State factory, light cream, prime.....	7 1/2
State factory, light cream, good.....	7 1/2
State factory, light cream, medium.....	7 1/2
State factory, light cream, common.....	7 1/2
State factory, light cream, medium.....	7 1/2
State factory, light cream, common.....	7 1/2

The exports of cheese from New York since May 1st (the beginning of the trade year) compare as follows:

	For week ending May 27.....	Same week 1888.....	Since May 1, 1889.....	Same time last year.....
Exports	1,565,593	1,800,943	734,950	4,007,183

A report of the *Utica Cheese Market* Monday last says:

"It was something more of a surprise to dairymen to see cheese decline 1/2 cts. again this week. They had calculated on getting about the same price as last week, but for all that they did not hold back their stock, as the amount of transactions show. Some sold a mixture of hay and grass cheese, others simply cleaned out their fodder stock, in order to start in next week with new make. So far as can be judged, the flow of milk is now about in the flush. During the last four or five cold days it has actually been down, but of course it will come up again with the return of better weather, although dairymen say it will not do more than get back again to the point where it was before. Buyers seem to have little confidence even in the present low prices, and lower are predicted within a short time."

The Liverpool market yesterday was quoted dull for new American cheese, with quotations at 45s. per cwt. for both white and colored, a decline of 3s. from the quotations of a week ago.

Saline—About 3,000 lbs. marketed so far. Prices are 18c for fine unwashed and 20c for washed. Better prices are looked for.

Moisture—Prices are quoted by the 24 to 28c per lb. for medium grades of washed wool.

Decatur—About 6,000 lbs. marketed. Prices are 18c for fine unwashed and 20c for washed.

Hillsdale—Unwashed quoted at 15 1/2 cts. per lb.

Three Rivers—About 2,000 lbs. reported marketed, at a range of 17 to 18c for washed and 20 to 22c for washed.

Professor Walney, of Munich, continues his interesting experiments respecting the germination of seeds, and the influence of covering them in the soil. He recommends farmers to select voluminous and fully matured grain for seed, and to sow in lines. Small sized seeds will produce stunted crops. By following the first course cereals will be able to withstand the rigors of winter and the danger of the corn blight; the latter is due to weak stems, the product of thick sowing, thereby excluding air and light strengthening influences, and stunted seed.

Who Knows?

Big Rapids, May 27, 1889.

To the Editor of the Michigan Farmer.

Do you or any one else know of anything that will kill live-forever? We have on our farm about half an acre that we have been trying to kill for some time, but have not succeeded.

Yours truly,

LYMAN F. MOREHOUSE.

The Grand Trunk Railway has discontinued the running of the Sunday M. Clemens trains, the last train having run on Sunday, May 26th; so there will be no Sunday train hereafter.

THE LATE DR. DIO LEWIS, over his own signature, in speaking of Warner's Safe Cure, said: "I am satisfied the medicine is not injurious, and will frankly admit that I found myself a victim of serious kidney trouble, I would use the preparation."

## THE NATIONAL BUTCHERS' ASSOCIATION.

The preparations made by the butchers of Detroit for the entertainment of the delegates to the National Convention were elaborate and complete in all their details Monday night, and the boys were looking forward to a very enjoyable time, which they had labored so hard to make a success. The first delegates to arrive were from Chicago and St. Louis, numbering about 70. They came Pittsburgh with a large delegation, headed by a brass band of 15 pieces. Later trains brought representatives from New York, Iowa, Pennsylvania, Kansas and other States.

The convention assembled Tuesday morning; the proceedings opened with prayer by the Rev. Mr. Service, of the Trumbull Avenue Presbyterian Church. Mayor Prigdon, who was to have welcomed the visitors, was unavoidably absent and sent a letter of regret. Thomas Barlum, the President of the Detroit Association, in a few well chosen remarks extended the members a hearty welcome, and was followed by Congressman Maybury, in a happy strain. In closing he said: "We bid everybody welcome to Detroit that comes for a good purpose, and for what better purpose can men come together than with the purpose in view of furnishing the people with pure meats?"

President Charles James, of St. Louis, was introduced by President Barlum, and said: "I have no language to express to you my idea of the beauty of the city of Detroit. I was here to your barbecue last fall, and to-day I think it is more beautiful than ever. I thank you for the cordial words that have been uttered and the hearty welcome that has been given us." He then proceeded to read his annual address, which was a review of the battle in various States for the "co-operation of the butchers and raisers of stock for the benefit of the public."

He said that in the States of Minnesota, Colorado, Indiana and the Territory of New Mexico the measure was carried. It was defeated in New York, Ohio, Nebraska, Pennsylvania, Wisconsin, Tennessee, Michigan and Missouri. In his own State of Missouri it was defeated by lobbyists and the free use of "bribe," and "he had the best reasons for believing that the same causes operated in every State where it was defeated."

Vice-President R. B. Nooney, of New York, addressed the convention. He promised that in the next Legislature of his State there would be a majority in favor of the bill just defeated, and that the next Governor would also be with them. This would be accomplished by the farmers and butchers, assisted by those who were opposed to trusts.

A resolution against the adulteration, compounding or false branding of compounds to be substituted for pure hog's lard was adopted, and also a resolution calling on Congress to pass bill No. 11027, which was introduced at the last session.

On Wednesday morning it started in to rain, and as it was much needed by the farmers and to lay the dust in the city, everybody was pleased. It also kept the delegates from wandering around the city, and all were found in attendance when the second day's proceedings opened. They attended strictly to business, the main feature of which was to re-elect Chris Burke, of St. Louis, as Secretary and organizer, making his salary \$1,500, and allowing him \$1,000 for expenses. The convention then elected their other officers as follows:

President, Charles James, of St. Louis; first vice-president, J. Nooney, of New York; second vice-president, William Peters, of Pittsburgh; financial secretary, Henry Phillips, of Detroit; treasurer, George Beck, of Detroit; trustees, John W. Letterie, of Louisville, S. Kreiger, of St. Louis, F. Greenwald of Pittsburgh, Giles Stanley, of Chicago, John Ruegman, of Danbury, Benjamin Marks, of Detroit, George A. Ashley, of Toledo. The convention then adjourned to meet in Cincinnati the fourth Tuesday in May, 1890.

The rain had continued to pour down in torrents, but everybody prophesied that Thursday morning would break fair, and that the programme for the entertainment of the guests would be carried out. But they were doomed to disappointment, for through the night and all day Thursday the rain continued to come down as if it had a contract to furnish so much water in so many hours. The oldest inhabitant could not recall a parallel of such a rainfall at this season of the year. The parade, which was to have been one of the main features of the programme, had to be abandoned. The steamer Cole had been chartered to convey the party to the Oakland, at St. Clair, where a banquet had been arranged for one o'clock. The rain was pouring and the wind was blowing a gale. This deterred many from joining in the trip, but still there was a good crowd that braved the elements, and although the storm continued throughout the trip those who participated in the ride through enjoyed themselves. There was music, dancing and speeches, with an abundance of refreshments. Among the speakers were Lieut. Gov. Ball, Senator Holbrook and H. H. Hinds, of the Live Stock Sanitary Commission. While the weather prevented the carrying out of the original programme, the visitors fully appreciated the fact that under other circumstances their entertainment in Detroit would have equalled, if not surpassed, the hospitality extended to their organization by other cities.

Mr. FRANK MERRITT, of Charlotte, purchased at the late sales at Dexter Park of selections from the Bow Park and Rumsey herds, the young Shorthorn bull Baron Oxford of Niagara 4th, to head his herd. He is a red roan, eleven months old, bred by R. Ramsey, of Buffalo, N. Y., and sired by Grand Duke of Oxford & Ridgewood 2d, a son of the noted Imp. 3d Duke of Tregenture 45961. On his dam's side he is a straight Oxford, his dam being Oxford of Niagara 4th by Imp. Grand Duke of Connaught 56938, g. dam, Grand Duke of Oxford 40th by 3d Duke of Wetherby (51033), running direct to Oxford 2d by Short Tail (3211). He is fit to head the best herd in the country for his breeding, and should prove a valuable acquisition to Mr. Merritt—just the thing to breed upon the heifers from his fine Barlington bull.

Recently J. T. Hurst, of East Saginaw, bought of Detroit parties 143,000 feet of pine on the Tobacco river for \$60,000; 100,000 feet of hemlock for \$60,000, and 143,000 feet of the choicest larch, which he values at \$200,000, making him a profit of \$70,000 on the deal. That is, how lumber barons are made.

John Earl, proprietor of the elevator at Schoolcraft, has made an assignment. He has been holding a large amount of wheat on a declining market. Farmers are anxious, as there are rumors of a shortage estimated at 170,000 bushels of wheat, and the elevator and residence are mortgaged for all they are worth.

Charles Vette, of Grand Rapids, out of employment and despondent, committed suicide on the 27th, after an attempt upon the life of his mother. It is thought he was insane when he committed the dreadful crime. His mother was an invalid, and will recover. Both were Socialists, and neither believed in the existence of a God or a future life.

Matthew Kramer, proprietor of the Michigan Volksblatt, the leading German newspaper, was killed by a train on the 27th.

per of this city came to Detroit career as a new evidence of business capacity and a comfortable life.

OWSON PRODUCE



**'83--Summit Poultry Farm.--'88**

**Barred Plymouth Rocks**

---AND---  
**LACED WYANDOTTES.**

A large and fine stock of Plymouth Rock breeding cockerels and pullets for winter sales. Also a few very nice Wyandotte cockerels. Eggs for hatching from either variety at \$2 per 13 or \$3 for 30. Address  
**C. F. R. BELLOW,**  
06-12  
YPSILANTI, MICH.



**H. W. RILEY,**  
GREENVILLE, MICH.,  
OWNER OF

**Challenge Herd of Poland China Swine.**  
Also Breeder of Victoria Swine.

Terms on application. All stock eligible to registry. This herd is descended from such noted hogs as Black to No. 841, Anson No. 10479, Jenny Lind No. 3808, and Pride of the Valley No. 10122, and other leading strains; all recorded in Ohio Record. One hundred March and April pigs for sale. Prices to suit the times. Special rates by express. 11-17

**L. W. & O. BARNES,**  
---PROPRIETORS OF---  
**"LAKE VIEW" STOCK FARM,**  
Byron, Shiawassee Co., Mich.



**CORA BELL, 2386.**  
and Kenneth by **W. M. & O. BARNES**

Breeders of pure bred Poland-China swine and registered Merino sheep. Swine recorded in O. P. C. Record. Our herd is one of the finest and best bred herds in the State, and has taken more premiums at the Michigan State Fair in the past five years than any other herd. We breed only from animals of fine quality, as well as gilt-edged pedigrees. We have now for sale a superior lot of young hogs and sows, dark in color and of fine quality. Prices reasonable. Write or come and see us. Special rates by express.

**WE**  
**Told Improved Charters**  
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Would  
See her be  
To her  
Her soft  
To his  
His rom  
When at  
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Dollars

**DOMINICK**

**It Sueded**  
Plea

Dominick Pe  
his last load  
and uttered  
himself at a rem  
what he said  
"I hadn't on  
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possessious—  
airs, the con  
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were his own—  
was too rich to  
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was a Mrs. Pe  
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tion as a marri  
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Mr. Partridge  
man, remark  
single," and he  
mind's eye a li  
of Locksie. T  
roughs, too fat  
green, the mos  
dark-seed man; and  
it," said Mr. P  
stern and ma  
Prudie, silly an  
later," sister  
frozen eleganc  
stop his pipe, la  
going, his weas  
as he pleased.  
he said then  
he laughed.  
"Why should  
under his bre  
Simon, who  
many a day,  
bired man, w  
may beside Mr  
dawn in an inn  
He saw his c  
apple red, and  
lab last to his h  
"I'll bet a cu  
thinkin' of, M  
"I'll bet an  
Master.  
"You was a  
said Si. "Tha  
"I wasn't ex  
ridge; "but I  
fi."  
"Comes to th  
it over in my  
pretty wife in  
the parlor fic  
posse, stoops  
and land cur  
squire's, and  
quatch, framed  
kinder a outlin  
more such w  
all very well  
bachelors wh  
you're settlin  
"Your fifty fou  
was as good  
order settle."  
"But, Si,"  
Partridge, "I  
"Out of the fr  
pose you're to  
Women get to  
is a comfort, a  
"round, and fl  
don't!" and th  
brother like wa  
pleasant."  
"Don't take  
with an air of  
you'd order go  
I speak soft  
the wint'ry ap  
time. "Think  
"So do you'll  
master. "Ride  
You dress up  
able rot. The  
called humbly  
called the han  
seventeen."  
"She was,  
ridge  
"I used to se  
the lane, there  
you'd make a  
you the mitten  
"So she did,  
ridge.  
"And go nig  
with a chuckl  
a day. Her h  
housekeeper to  
—she's sorry,  
"Think so, Si  
turning red ag  
"Of course,"  
through havin  
up the squir  
the squir's p  
black-eyed; an  
white, and ye  
eyes are gray.  
some call her  
choice, and you  
got a bean and  
place for you  
Mrs. Dobson w  
"Rh!" cried  
the veing the  
had broken his  
where you got  
"Rh!" ejacu  
"You mean  
squire's!" and  
"Most suitab  
Partridge fam  
rich man," said  
two on a ma  
orve on a ma  
three young  
little child an  
frightened bit  
hair, Myra wit  
Bella.  
"Can it be!"  
"S'ar it!"







